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Remarks

In the present response, three claims (11, 16, 21) are amended; and two claims (15, 20) are withdrawn. No new matter is added.

I. Election/Restriction

Claims 15 and 20 are withdrawn.

II. Claim Rejections: 35 USC § 102

Claim 11 is rejected under 35 U.S.C. §102(b) as being anticipated by USPN 5,930,553 (Hirst). Applicant respectfully traverses.

A proper rejection of a claim under 35 U.S.C. §102 requires that a single prior art reference disclose each element of the claim. See MPEP § 2131, also, *W.L. Gore & Assoc., Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 U.S.P.Q. 303, 313 (Fed. Cir. 1983). Since Hirst neither teaches nor suggests each element in claim 11, this claim is allowable over Hirst. Some examples are provided below.

Example 1

Claim 11 recites a print cartridge having an upgrade version of program code for a **host computer**. By contrast, Hirst expressly teaches downloading upgrades from the print cartridge to microcontrollers in the printer or office automation equipment, not a host computer. Applicant cites several locations in Hirst:

Additionally, it would be advantageous to be able to provide software patches and updates to the **office automation and image forming devices**. (Emphasis added: 2: 23-25).

While this representation is indicative of a laser type printer it should be understood that the invention is not so limited and is applicable to **other image forming devices and office automation devices** such as facsimile machines, thermal printers, impact printers, ink jet printers and virtually any other kind of

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device which uses expendable components to create the images.
(Emphasis added: 4: 10-17).

However, should it become necessary or desirable to update the instructions for a microcomputer 30, a software patch stored in memory segment 19e of consumable memory device 19 can be uploaded into EEPROM 33. (5: 54-57).

Thus, Hirst does not teach or suggest a print cartridge having an upgrade version of program code for a **host computer**.

For at least these reasons, claim 11 and its dependent claims are allowable over Hirst.

Response to Office Action

The Office Action argues that "software or firmware in the image forming device controls the operation of the cartridge and acts as a host computer" (see OA at p. 6). For at least the following reasons, Applicant respectfully disagrees.

The argument in the Office Action is contrary to the law. According to MPEP § 2111.01, the words of a claim must be given their "plain meaning." Webopedia is an online dictionary for computer and internet technology definitions. Per Webopedia (see www.webopedia.com), a host computer is defined as:

(1) A computer system that is accessed by a user working at a remote location. Typically, the term is used when there are two computer systems connected by modems and telephone lines. The system that contains the data is called the host, while the computer at which the user sits is called the remote terminal.

(2) A computer that is connected to a TCP/IP network, including the Internet. Each host has a unique IP address.
A device that prints text or illustrations on paper.

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Hirst does not teach or suggest a print cartridge having an upgrade version of program code for a **host computer** per the plain meaning of this term. Hirst expressly teaches updating instructions on an image forming device, such as a printer (see Hirst at 4: 10-16). Webopedia defines a printer as: "A device that prints text or illustrations on paper." An image forming device is not a host computer.

Applicant acknowledges that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). A host computer is not a printer or facsimile or other image forming device as these terms are known in the art and used in Hirst and Applicant's specification.

Example 2

As another example, claim 11 recites that the print cartridge stores program code for a host computer that is in communication "with a printer that includes the print cartridge." Thus, claim 11 recites recitations directed toward a host computer and a printer. This recitation further distinguishes the position of the Office Action (arguing that a printer or facsimile is a host computer).

Hirst states that the print cartridge provides instructions for a printer, facsimile, or other image forming device. Hirst never states or even suggests that the print cartridge provides code to a host computer. Claim 11 clearly distinguishes Hirst.

For at least these reasons, claim 11 and its dependent claims are allowable over Hirst.

III. Claim Rejections: 35 USC § 103

Claim 13 is rejected under 35 USC § 103 as being unpatentable over Hirst in view of USPN 5,878,256 (Bealkowski). Bealkowski fails to cure the deficiencies of Hirst. Thus, for at least the reasons given in connection with independent claim 11, dependent claim 13 is allowable over Hirst and Bealkowski.

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IV. Claim Rejections: 35 USC § 103

Claims 12, 16-18, 21, 23, and 24 are rejected under 35 USC § 103 as being unpatentable over Hirst in view of "1.2 GB Firmware Utility" developed by Apple Computer, Inc (Apple). This rejection is traversed.

To establish a prima facie case of obviousness, three basic criteria must be met. First, there must be some suggestion or motivation, either in the references themselves or in the knowledge generally available to one of ordinary skill in the art to modify the reference or to combine reference teachings. Second, there must be a reasonable expectation of success. Finally, the prior art cited must teach or suggest all the claim limitations. *See* M.P.E.P. § 2143. For at least the following reasons, Applicant asserts that the rejection does not satisfy these criteria.

No Suggestion/Motivation to Modify/Combine References

For at least the following reasons, no suggestion or motivation exists to modify or combine Hirst in view of Apple.

First, Applicant argues that no teaching or suggestion exists to make the combination because the references are directed to completely different inventions. Hirst is directed to a "consumable" such as "toner, ink, ribbon, photoconductor, developer, etc." (1: 15-18 or 4: 47-48)). In Hirst, the invention employs a memory device located on or within the consumable to provide a software patch to image forming devices, such as printers and facsimiles (4: 10-16 and 45-49). **By contrast, Apple teaches a completely different invention.** Apple is not directed to a consumable, but to a floppy disk. Further, Apple teaches using a floppy disk to update firmware on a hard drive (as opposed to using a consumable to update a printer or facsimile).

The Examiner must provide *objective evidence*, rather than subjective belief and unknown authority, of the requisite motivation or suggestion to combine or modify the cited references. *In re Lee*, 61 U.S.P.Q.2d. 1430 (Fed. Cir. 2002). Obviousness cannot be established by combining the teachings of the prior art to produce the claimed invention absent some teaching or suggestion supporting the combination. *ACS Hospital Systems, Inc. v. Montefiore Hospital*, 732 F.2d 1572, 1577, 221 U.S.P.Q. 929, 933 (Fed. Cir. 1984). Such teaching or suggestion does not exist.

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Second, Applicant argues that no teaching or suggestion exists to make the combination because the references are directed to solving completely different problems. In Hirst, the Background section discusses that manufacturers would like information on how consumable print cartridges are used (1: 25-39). Additionally, it is desirable to provide software updates to image forming devices (1:57-60, and 2: 23-25). **By contrast, Apple solves completely different problems.** Apple discusses an anomaly with hard drives that “experience an intermittent flashing question mark from a cold boot or a restart.” Apple clearly states the problem: “Restarting the computer may allow the hard drive to boot up properly, but the flashing question mark may return upon the next cold boot.”

To establish a *prima facie* case, the Examiner must not only show that the combination includes *all* of the claimed elements, but also a convincing line of reason as to why one of ordinary skill in the art would have found the claimed invention to have been obvious in light of the teachings of the references. *Ex parte Clapp*, 227 U.S.P.Q. 972 (B.P.A.I. 1985).

In light of the completely different inventions and problems being solved in Hirst and Apple, no suggestion or motivation exists to combine or modify these references.

For at least these reasons, Applicant respectfully asks the Examiner to withdraw the rejection since a *prima facie* case of obvious has not been established.

Response to Examiner's Arguments on Combination

The Examiner argues that the combination of Hirst and Apple are obvious because they are “preventing overwriting of program code with incompatible upgrade code which can cause device failure and preventing unnecessary upgrading which can reduce the lifetime of the device” (OA at p. 5). Applicant respectfully disagrees.

As discussed above, Hirst and Apple are directed to different inventions that solve different problems in the art. No motivation exists to combine these references. Instead, the Examiner is performing an improper piecemeal construction that uses hindsight to arrive at the claim elements. In other words, the Examiner is picking and choosing sentences or teachings from Hirst and Apple with hindsight of Applicant's invention to allegedly obviate the pending claims. One cannot use hindsight reconstruction to pick and

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choose among isolated disclosures in the prior art to deprecate the claimed invention. *In re Fine*, 837 F.2d 1071, 5 U.S.P.Q.2d 1596 (Fed. Cir. 1988).

All Elements Not Taught or Suggested

All of the elements of the claims are not taught or suggested in Hirst and Apple. In other words, evening assuming *arguendo* that Hirst and Apple are successfully combinable (which they are not), the alleged combination does not teach or suggest all the elements in the claims.

By way of example, claim 16 recites:

determining if a host computer, in communication with a printer that includes the print cartridge, requires an upgrade; and
if the host computer requires the upgrade, then downloading the code from the print cartridge to the host computer.

Argument 1

Claim 16 recites downloading code from the print cartridge to a **host computer**. By contrast, Hirst expressly teaches downloading upgrades from the print cartridge to microcontrollers in the printer or office automation equipment, not a host computer. Applicant cites several locations in Hirst:

Additionally, it would be advantageous to be able to provide software patches and updates to the **office automation and image forming devices**. (Emphasis added: 2: 23-25).

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device which uses expendable components to create the images.
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However, should it become necessary or desirable to update the instructions for a microcomputer 30, a software patch stored in memory segment 19e of consumable memory device 19 can be uploaded into EEPROM 33. (5: 54-57).

Thus, Hirst does not teach or suggest downloading code from a print cartridge to a **host computer**.

For at least these reasons, claim 16 and its dependent claims are allowable over Hirst and Apple.

Response to Office Action

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Applicant acknowledges that claims must be given their broadest interpretation during patent examination. However, this interpretation must be a "**reasonable interpretation consistent with the specification**" (see MPEP 2111: emphasis added). A host computer is not a printer or facsimile or other image forming device as these terms are known in the art and used in Hirst and Applicant's specification.

For at least these reasons, claim 16 and its dependent claims are allowable over Hirst and Apple.

Argument 2

As another example, claim 16 recites that the print cartridge stores downloadable code for a host computer that is in communication "with a printer that includes the print cartridge." Thus, claim 16 recites recitations directed toward a host computer and a printer. This recitation further distinguishes the position of the Office Action (arguing that a printer or facsimile is a host computer).

Hirst states that the print cartridge provides instructions for a printer, facsimile, or other image forming device. Hirst never states or even suggests that the print cartridge provides code to a host computer. Claim 16 clearly distinguishes Hirst and Apple.

For at least these reasons, claim 16 and its dependent claims are allowable over Hirst and Apple.

V. Claim Rejections: 35 USC § 103

Claims 22 is rejected under 35 USC § 103 as being unpatentable over Hirst in view of Apple and Bealkowski. Claim 22 depends from claim 16. Thus, for at least the reasons given above with independent claim 16, dependent claim 22 is allowable over Hirst, Apple, and Bealkowski.

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VI. Allowable Subject Matter

Applicant sincerely thanks the Examiner for indicating allowance of dependent claim 19. With these amendments and remarks, Applicant makes a sincere effort to place this case in condition for allowance.

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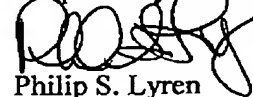
CONCLUSION

In view of the above, Applicant believes all pending claims are in condition for allowance. Allowance of these claims is respectfully requested.

Any inquiry regarding this Amendment and Response should be directed to Philip S. Lyren at Telephone No. (832) 236-5529. In addition, all correspondence should continue to be directed to the following address:

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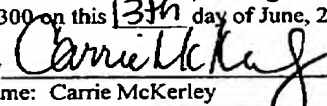
Respectfully submitted,



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CERTIFICATE UNDER 37 C.F.R. 1.8

The undersigned hereby certifies that this paper or papers, as described herein, is being transmitted to the United States Patent and Trademark Office facsimile number 571-273-8300 on this 13th day of June, 2006.

By 
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